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PATENT SPECIFICATION

613,165

Convention Date (United States of America): June 21, 1945.

Application Date (In United Kingdom): June 13, 1946. No. 17799/46.

Complete Specification Accepted: Nov. 23, 1948.

Index at acceptance:—Class 52(i), C4b1, C4f(3: 6).

COMPLETE SPECIFICATION

Cabinets for Toilet Articles

I, GEORGE WISE, a Citizen of the United States of America, residing at 5404, 4th Street, Northwest, Washington, District of Columbia, United States of America, do hereby declare the nature of this invention and in what manner the same is to be performed to be particularly described and ascertained in and by the following statement:—

This invention relates to cabinets particularly adapted for receiving men's or women's toilet articles, although, as will be apparent to those skilled in the art, cabinets constructed in conformity with the present invention can readily hold first aid, medical or other comparable articles and therefore the terms "toilet cabinet" or "cabinets for toilet articles" are used herein as generic to cabinets serving the general purposes of medicine cabinets as conventionally provided in bathrooms as well as cabinets intended specifically for use in making a toilet.

It is an object of this invention to provide an improved cabinet to facilitate access to toilet articles normally stored within the cabinet but movable to a position of ready access exteriorly of the cabinet.

Another object of this invention is to provide an improved device of the type characterized wherein a member for closing the cabinet becomes a shelf extension in front of the toilet articles when moved to the exterior of the cabinet.

Another object of this invention is to provide an improved device of the type characterized wherein the movement of the toilet articles exteriorly of the cabinet may be effected by movement of the closure member.

Another object of this invention is to provide an improved device of the type characterized wherein the movement of the toilet articles to their position exteriorly of the cabinet may be effected automatically upon opening of the closure member.

[Pri

Another object of this invention is to provide an improved device of the type characterized which may be readily adapted to take toilet kits of varying sizes.

Another object of this invention is to provide an improved device of the type characterized with which may be readily associated illumination means, as for example to facilitate shaving, or other electrical provisions, as for example a drying pad.

Another object of this invention is to provide an improved device of the type characterized which is entirely stable when the toilet articles are moved to their position exteriorly of the cabinet.

Another object of this invention is to provide an improved device of the type characterized which may take a wide variety of forms depending upon the size and character of the articles to be used.

Another object of this invention is to provide an improved device of the type characterized which is simple in construction, durable in character, compact as to space consumption, and of such nature that it may be readily designed and adapted to fit into the architectural requirements of bathrooms or the like, having regard for the size, cost and appearance of the installation.

Other objects will appear as the description of the invention proceeds.

The invention consists in a cabinet for toilet articles comprising an outer cabinet, a case for said articles housed in said outer cabinet, relatively slidable members attached to said case and said outer cabinet for slidably mounting said case to move into and out of said outer cabinet and to provide a rigid support for the case when in its outer position, and a closure member for said outer cabinet pivotally attached to said case and operable to move said case into and out of said outer cabinet.

The invention is capable of receiving a variety of mechanical expressions,

several of which are illustrated on the accompanying drawings, but it is to be expressly understood that the drawings are for purposes of illustration only, and are not intended to be a definition of the limits of the invention, reference being had to the appended claims for that purpose.

Referring in detail to the drawings, wherein the same parts have corresponding reference characters in the several figures, different phases of the invention are illustrated more or less diagrammatically in different views for facility of understanding.

Fig. 1 is a perspective elevation to illustrate one manner in which an embodiment of the present invention may be installed;

Fig. 2 is a perspective elevation of an embodiment of the present invention;

Figs. 3, 4 and 5 are vertical sections of the embodiment of Fig. 2 to illustrate respectively the cabinet in closed position, the cabinet with closure member open and the cabinet with the toilet articles moved exteriorly of the cabinet;

Fig. 6 is a vertical section of the embodiment of Fig. 1 parallel to the face of the cabinet and to a larger scale;

Fig. 7 is a perspective view of another embodiment of the present invention;

Figs. 8, 9 and 10 are vertical sections of the embodiment of Fig. 7 respectively illustrating the cabinet in closed position, the cabinet with closure members open and the cabinet with the toilet articles moved exteriorly of the cabinet;

Fig. 11 is a horizontal section of the embodiment of Fig. 7;

Fig. 12 is a front view of the embodiment of Fig. 7;

Fig. 13 is an enlarged view in section of the automatic means for moving the toilet articles exteriorly of the cabinet;

Fig. 14 is a perspective elevation of another embodiment of the present invention;

Fig. 15 is a vertical section through yet another embodiment of the present invention;

Fig. 15 is a front elevation of another embodiment of the present invention; and

Fig. 17 is a perspective view from the rear of yet another embodiment and also showing the adapter hereinafter described.

In conformity with the present invention a cabinet 20 of any suitable size, construction and material is provided, having regard to the particular toilet articles, as a shaving kit, to be housed thereby. Said cabinet may be made an integral part of the usual medicine cabinet 21 disposed above the washbowl 22, or it may be made as a separate cabinet suitably recessed into the wall of the room, preferably immediately adjacent to and below the medicine cabinet 21 as shown in Fig. 1, or it may be made as a separate portable cabinet that may be attached to a wall by any suitable support, or suspended from a wall in any suitable way, at any suitable location, as will be apparent to those skilled in the art.

Mounted within the cabinet 20 is a toilet kit or case 23 which also may be of any suitable size, construction and material and built to provide convenient access to any desired number of suitable toilet articles. As shown, the kit is in the form of a case having an open front and an open top and provided with one or more shelves 24, one or more drawers 25, suitable racks 26, etc., but it is to be expressly understood that the toilet cases shown have been selected merely for purposes of illustration.

Case 23 is suitably mounted so that it may move into and out of the cabinet 20 as hereinafter explained in greater detail. A variety of provisions for facilitating such movement are herein described, but it is to be expressly understood that they have been selected merely to exemplify some of the various provisions that may be used in embodying the invention, any suitable provision to this end being within the contemplation of this invention. Where economy or other reasons dictate the provision for the movement of the case into and out of the cabinet may be a single means disposed preferably in the central medial fore-and-aft plane of the cabinet, but for purposes of stability I preferably employ two such means disposed symmetrically with respect to the medial fore-and-aft plane of the cabinet as shown in embodiments herein illustrated.

To provide relatively slidable members in the embodiment of Figs. 2 to 6 the bottom 27 of the cabinet 20 has a pair of upstanding fore-and-aft extending tracks or rails 28, here shown as in the form of ribs provided with dovetailed grooves 29, and the bottom of the case 23 is shown as provided with correspondingly shaped ribs or runners 30 sliding in the grooves 29. If preferred the grooves and ribs may be reversed. To provide relatively slidable members in the embodiment of Fig. 14 the ways for the runners are shown as in the form of inverted T-shaped slots 31 provided in a flat plate 32 suitably secured to the bottom of the cabinet, while the under-

side of the case 23 is provided with a pair of plates 33 suitably attached to the bottom of the case as by screws 34 and having an inverted T-shaped rib or runner 35 of any suitable length sliding therein. In the embodiment of Fig. 15 a lazy tongs or set of nested links 36 is suitably attached to the bottom of the case 23 at 37 and directly to the cabinet wall, preferably the bottom 27 thereof, at 38. The relatively slidable members of the embodiment of Fig. 16 include a plate 39 suitably attached to the bottom of the case 23 and it in turn slides by means of the dovetailed runners 40 in the dovetailed grooves 41 of a second plate 42 which may be either fixedly attached to the bottom 27 of the cabinet 20 or it may itself be slidable so as to double the extent of the projection of the case outside of the cabinet, in which event the lateral edges of the plate 42 may be provided with slotted plates 43 for cooperation with pins 44 mounted in the lateral walls of the cabinet 20 and projecting into the slots of said plates 43. The relatively slidable members of the embodiment of Fig. 17 include a plate 45 provided for attachment to the bottom of the case and it carries suitable brackets 46 for slidable movement on a pair of rods, bars or the like 47 of any suitable cross section. Such rods, bars or the like may be directly attached to the bottom 27 of the cabinet or to the rear wall thereof at their inner extremities. Other suitable means to provide for the sliding of the case 23 into and out of the cabinet 20 will now be apparent to those skilled in the art.

In the several embodiments means (not shown) are provided to constitute stops to prevent movement of the case so far out of the cabinet as to result in a disengagement of the case from the cabinet by separation of the members in sliding engagement. Such stops may conveniently be associated with the ways or runners or they may be mounted in the cabinet walls.

Where the lower runners are of wedge or inverted T-shape and they are stopped before disengagement from the groove in the track or rail the case is still firmly supported and stable when moved to its forwardmost position, but to relieve the runners and tracks from sustaining the overhanging weight of the forwardly disposed case, and particularly where the case is extended to a considerable distance in front of the cabinet so that the moment of the case is relatively large, means may be provided for cooperation with the slidable support to oppose the moment of the extended case tending to rotate the same around the edge of the cabinet. Thus as shown in Fig. 16 suitable guide members 48 may be attached to the side walls of the cabinet and overlay the upper surface of the slide 42 to hold the latter against tilting movement. If desired, additional members for guiding the relative sliding movement of the case into and out of the cabinet may be provided. Thus in the embodiment of Figs. 2 to 6 a pair of runners 49 are illustrated as sliding in grooves in the cabinet walls. Also any suitable antifriction means may be provided between the relatively slidable elements of the support.

In conformity with the present invention the movement of the case to its forward position may be effected by manipulation of the closure member of the cabinet, or it may be effected automatically by the opening or release of the closure means or it may be effected manually and independently of the closure means.

In the embodiment of Figs. 1 to 6 the door 50 for closing the front of the cabinet is shown as hinged at 51 to the lower edge of the case 23. The lower extremity of the door 50 extends beyond the hinge 51 as shown at 52 so that when the door is in its lower horizontal position the extension 52 will engage the bottom of the case and hold the door in a horizontal position constituting a shelf projecting forwardly from the case. The front extremity of the bottom 27 of the cabinet 20 is suitably grooved as shown at 53 so as to provide the necessary clearance for the aforesaid movement of the extension 52. When the door is in its closed poition as shown in Fig. 3 it completely closes the front of the cabinet and any suitable spring lock as diagrammatically indicated at 54 may hold the door closed, the lock preferably being of a type well known in cabinet constructions that is readily releasable when a moderate pull is applied to the knob 55. Movement of the door 50 to open position, as shown in Fig. 4, disposes said door in front of the case, and if preferred the hinge 51 may be a spring hinge so as to cause the door to move to this position automatically. The door 50 may then be pulled forward horizontally in its own plane as shown in Fig. 5, whereupon the case 23 moves to its outer position until stopped by the action of the stops above referred to. Now the case 23 is positioned forwardly of the cabinet 20 where all of its contents are readily accessible while the horizontally projecting door 50 constitutes an extension shelf which may be used for deposit of the shaving or other toilet articles while in use. Thus the door,

in addition to being a closure member, becomes a push-pull element for moving the case into and out of the cabinet.

The embodiment of Figs. 7 to 13 illustrates an automatic construction employing the type of case and means providing movement thereof into and out of the cabinet of the type embodied in Figs. 1 to 6, but it is to be expressly understood that the automatic feature may be associated with the other embodiments illustrated or other suitable constructions within the present invention. In this form the front of the cabinet 20 is shown as provided with closure means composed of two leaves 56 and 57 hinged respectively at 58 and 59 to the upper front edge of the cabinet 20 and to the lower front edge of the case 23 analogously as in the embodiment of Figs. 1 to 6. In this embodiment the closure member for actuating the automatic means is one of the two leaves, preferably the lower. The hinges 58 and 59 are preferably spring hinges so that the leaves when released will move automatically to upper and lower horizontal positions as shown in Fig. 9. Any suitable lock releasable mechanically or electrically as diagrammatically indicated at 60 in Fig. 8 may be used for retaining the doors in closed position, or the lock may be one such as referred to in conjunction with the embodiment of Figs. 1 to 6 with reliance on the spring hinges to move the leaves 56 and 57 to upper and lower horizontal positions to effect the automatic operation next to be described. To move the case to its forward position automatically, suitable spring means are provided interiorly of the cabinet for cooperation with the case or some movable part attached therto for projecting the case to its forward position when actuated by the lower leaf 57 moving to its horizontal position. Any suitable means to this end may be employed. The embodiment of Figs. 7 to 13 employs a pair of spring actuated devices 61 symmetrically arranged with respect to the fore-and-aft medial plane of the cabinet. As shown in enlarged sectional detail in Fig. 13, each spring actuated device 61 includes an outer cylinder 62 attached in any suitable way to the bottom 27 of the cabinet 20. Telescopically movable in said cylinder 62 is a plunger 63 attached by suitable brackets 64 to the underside of the case 23. Pivotally mounted on a pin 65 carried by and extending diametrically across the cylinder 62 is a trigger 66 having a forwardly projecting trip arm 67, the trip arms of the two devices 61 being connected as shown at 68 for simultaneous operation. Trigger 66 has a forwardly extending detent arm 69 provided with a nose 70 adapted to engage and lock with the extremity of a slot 71 in the cylinder 62 and thereby form a latch for the plunger in its inner position. Interposed between the trigger 66 and the front end of the plunger 63 is a coil spring 72 centred by a lug 73 at the forward end of the plunger and by a lug 74 on the trigger 66. Plunger 63 is slotted as shown at 75 so that it may move with respect to the transversely extending pivot pin 65. Trip member 67, 68 projects forwardly to a position where it is engaged by the lowermost extremity of door leaf 57 as it moves into its horizontal position shown in Fig. 9. Trigger 66 is thereby moved slightly in an anticlockwise direction sufficiently to release the latch by freeing the nose 70 on the detent arm 69 from its slot 71, whereupon the spring 72 moves the plunger 63 to its forwardmost position carrying the case 23 therewith by reason of the brackets 64. Thus the case 23 is moved automatically to the position shown in Fig. 7 by the action of the spring hinge moving door leaf 57 to its horizontal position shown in Fig. 9. To close the cabinet the leaf 57 is pushed rearwardly against the tension of the springs 72 until the plungers are locked in inner position by the operation of the latches 70, 71, after which the leaves of the door may be moved to closed position and locked there by the lock at 60.

The embodiment of Figs. 7 to 13 also illustrates an additional feature that may be incorporated in this and other embodiments of the present invention: the upper leaf 56 of the door is shown as provided with any suitable lighting means 76, with or without a suitable reflector, and said lighting means preferably is automatically energized by one of the two leaves here shown as the upper leaf 58 closing a switch through a press button 77 as the upper leaf 56 is moved automatically to its open position by its spring hinge 58.

The embodiments of Figs. 14, 16 and 17 illustrate how cases of different sizes may be readily adapted for use with the present invention. As here shown the case 23 is attached to its slidable support by an extension bracket 78 composed of a pair of relatively slidable members 79 and 80 (see Fig. 17) having upstanding flanges 82 by which the adapter constituted by this extension bracket 78 may be attached to the sides of the case as shown at 83 in Figs. 14 and 16. By telescoping the plates 79 and 80 with respect to each other they can be adjusted in the direction of the width of the cabinet sc

as to receive cases of different widths. The adjustable plates or the bottom of the case may then be attached to the adapter, Fig. 16 showing the adapter attached to the slidable plate 39 by screws 84.

In Figs. 14 and 15, it will be observed that the closure member 86 is hinged to a vertical edge of the cabinet (Fig. 14) and to the lower horizontal edge of the cabinet (Fig. 15) and that the case is moved into and out of the cabinet by manual operation of the knob 85.

According to the invention however, the closure member in both Fig. 14 and Fig. 15 will be attached to the case so that movement out of and into the cabinet is effected by pulling the closure member forwardly or pushing it rearwardly as disclosed in Figs. 1 to 6, or operated automatically as disclosed in Figs. 7 to 13.

It will therefore be perceived that by the present invention a cabinet for toilet articles has been provided which is of wide utility and readily adaptable to a wide variety of conditions and services. In each embodiment relatively movable parts which may take a variety of forms and which are preferably relatively slidable members provide for movement of the case containing the toilet articles to a forward position with an extent of movement which may be nearly as great as the depth of the cabinet to dispose the case in front of the cabinet where access may be readily had to all parts thereof, and by providing one or more intermediate parts between the relatively movable members attached to the case and to the cabinet as in Fig. 16 the extent of forward movement of the case may be made appreciably greater. At the same time the closure member for the cabinet in its entirety or a leaf thereof may be used as an extension shelf in front of the case, providing a convenient platform upon which to place the toilet articles while in use. By hinging the door or a leaf of the door to the case, the entire door or leaf is free for use as a shelf, and at the same time the door or leaf may be used to move the case into and out of the cabinet to facilitate the disposition of the parts in their outer position of use. While the preferred embodiments use relative sliding motion between the case and cabinet a hinged or other pivotal movement between the case and the cabinet may be used with certain aspects of the present invention. Furthermore, the present invention readily lends itself to fully automatic operation so that by merely pressing a suitable button the door or door leaves may be readily released, whereupon the door or door leaves under the action of their spring hinges move to their outer position of service automatically and, in so doing, actuate automatic means for moving the case outwardly, closing the switch to energize illuminating means, etc. Furthermore, each of the constructions provides a relatively simple and compact arrangement which is strong and durable with the case for the toilet articles supported rigidly in a position of stability when moved to its position of service.

While the embodiments of the invention illustrated on the drawings have been described with considerable particularity, it is to be expressly understood that the invention is not limited thereto as the invention is capable of receiving a variety of other expressions as will now be apparent to those skilled in the art, while changes may be made in the details of construction, arrangement, proportion of parts, etc., and certain features may be used without other features, and the several features disclosed may be associated in various combinations thereof, all without departing from the present invention.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. A cabinet for toilet articles comprising an outer cabinet, a case for said articles housed in said outer cabinet, relatively movable members attached to said case and said outer cabinet for movably mounting said case to move into and out of said outer cabinet and to provide a rigid support for the case when in its outer position, and a closure member for said outer cabinet pivotally attached to said case and operable to move said case into and out of said cabinet.

2. A cabinet as claimed in Claim 1, wherein the closure member is hinged to the lower horizontal edge of the case to form a shelf in front of said case when in the open position.

3. A cabinet for toilet articles as claimed in Claim 1 or 2, wherein the closure member when in the open position, is operable as a push-pull means for moving said case into and out of the cabinet.

4. A cabinet for toilet articles as claimed in Claim 1 or 2, wherein spring means are provided and actuated by the closure member upon reaching the open position for automatically moving the case out of the cabinet.

5. A cabinet for toilet articles as claimed in Claim 4, wherein the spring means are controlled by a latch which is

released by the closure member when it reaches the open position.

6. A cabinet for toilet articles as claimed in Claim 1, wherein relatively slidable members are shaped to prevent disengagement thereof.

7. A cabinet for toilet articles as claimed in Claim 6, wherein the relatively slidable members are located between the case and the vertical walls of the cabinet.

8. A cabinet for toilet articles as claimed in any of the preceding claims, wherein the slidable members associated with the case are provided with an adjustable adaptor for mounting cases of different sizes within the cabinet.

9. A cabinet for toilet articles as claimed in any of the preceding claims, wherein the closure member comprises upper and lower portions, the lower portion being pivoted to the case, the upper portion being pivoted to the cabinet and pivoting upwardly, said cabinet being provided with an electric lamp which is automatically switched on and off by the movement of said upper portion.

10. A cabinet for toilet articles, as claimed in Claim 9, wherein movement of the upper and lower closure members to the open position is aided by spring means.

11. A cabinet for toilet articles substantially as described with reference to the accompanying drawings.

Dated this 13th day of June, 1946.

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[This Drawing is a reproduction of the Original on a reduced scale.]

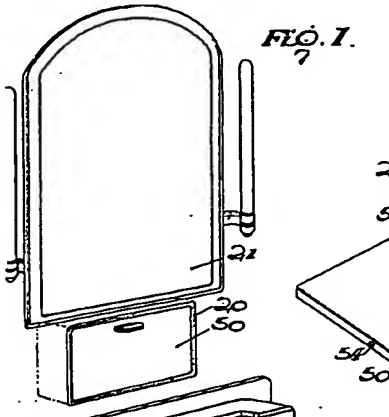

FIG. 1.

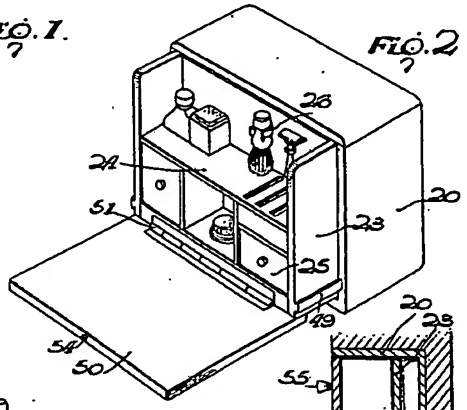

FIG. 2.

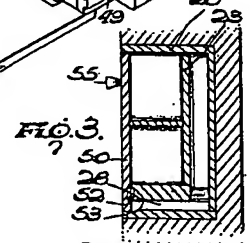

FIG. 3.

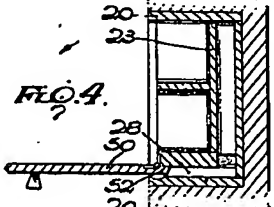

FIG. 4.

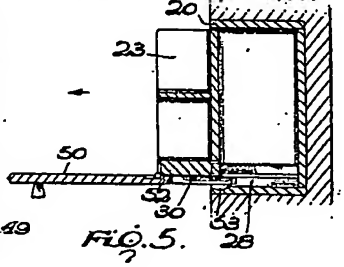

FIG. 5.

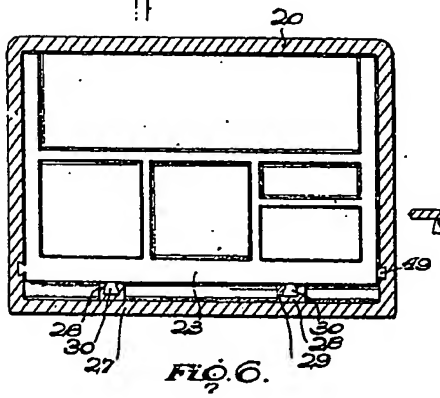

FIG. 6.

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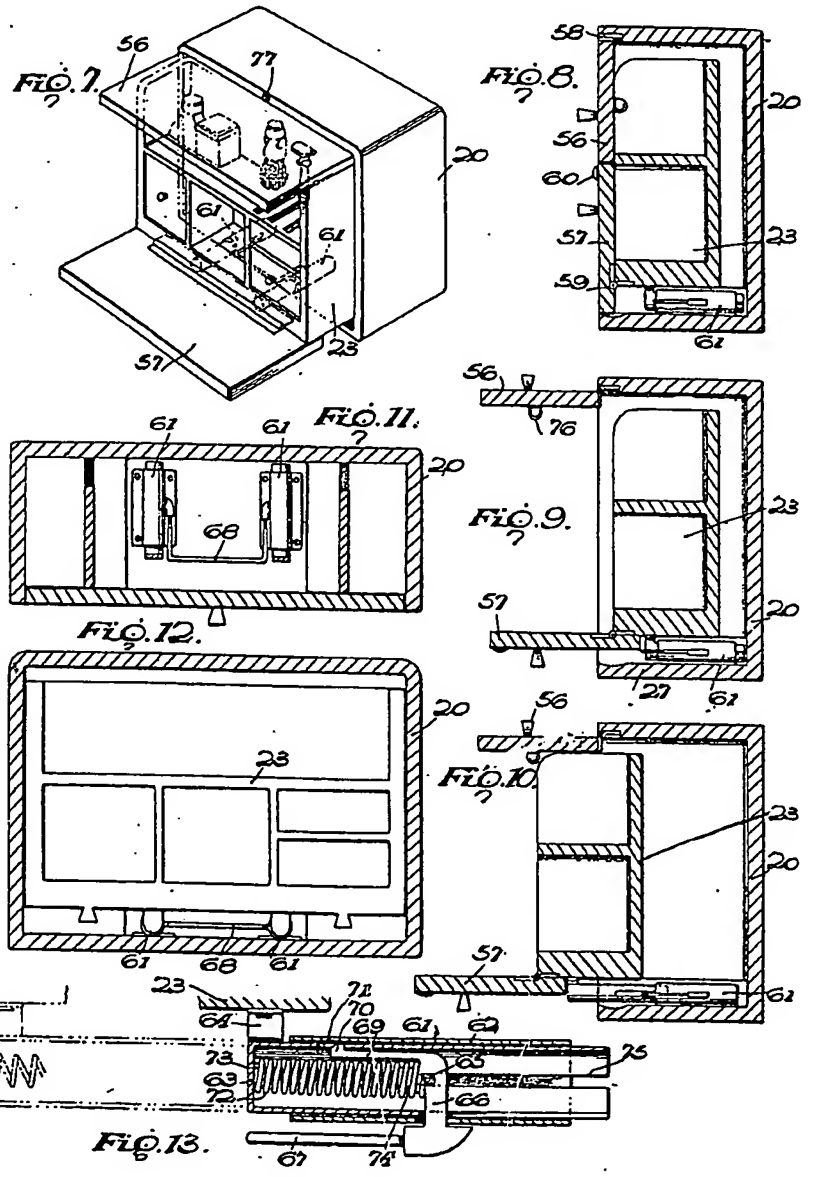


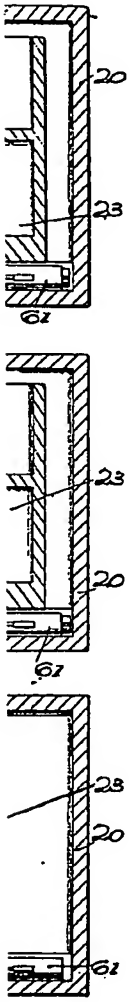


FIG. 14.

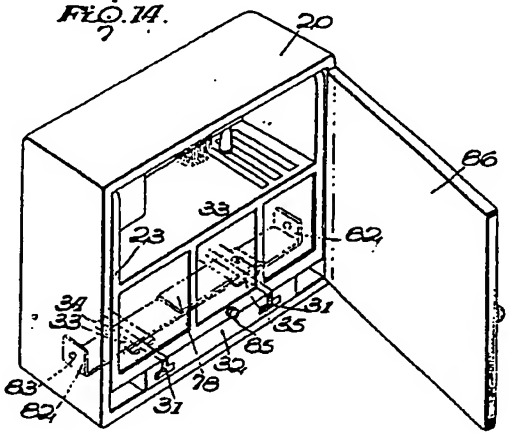


FIG. 15.

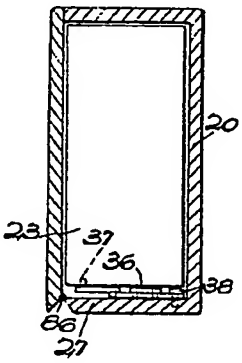


FIG. 16.

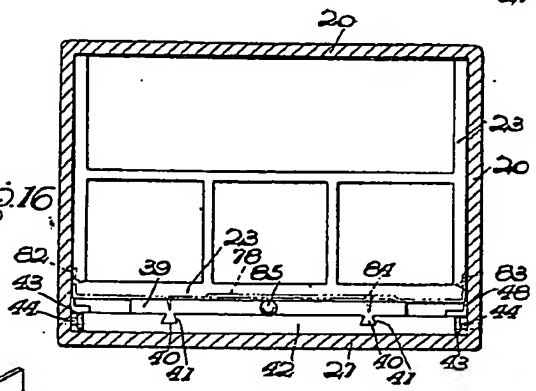
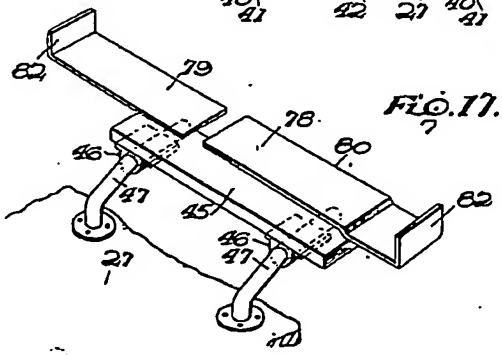


FIG. 17.



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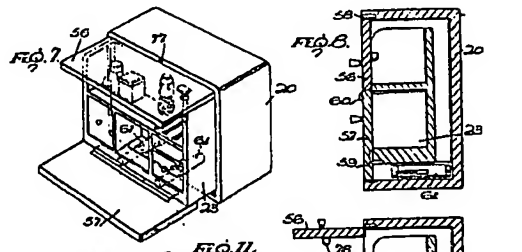

FIG. 7.

FIG. 8.

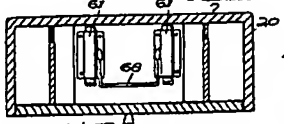

FIG. 11.

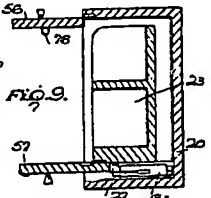

FIG. 9.

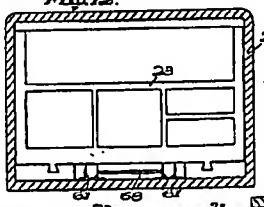

FIG. 12.

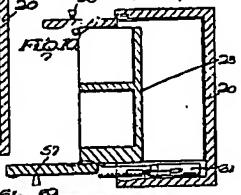

FIG. 10.

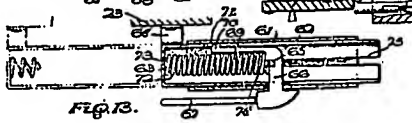

FIG. 13.

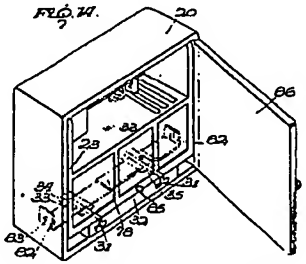

FIG. 14.

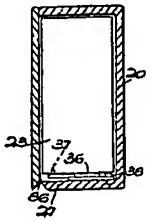

FIG. 15.

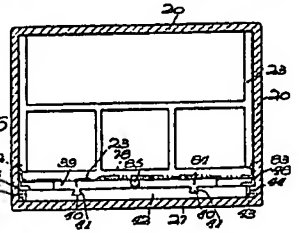

FIG. 16.

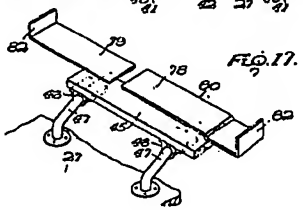

FIG. 17.